

91. **(Twice Amended)** A method for stimulating the production of an N-CAM or L1 isoform in a neuronal cell, comprising contacting the neuronal cell with a morphogen comprising a dimeric protein having an amino acid sequence selected from the group consisting of a sequence:

- (a) having the C-terminal seven-cysteine skeleton of human OP-1, residues 38-139 of SEQ ID NO:5;
- (b) having the amino acid sequence of the C-terminal seven-cysteine skeleton on human OP-1;
- (c) defined by Generic Sequence 6, SEQ ID NO:31; and
- (d) defined by OPX, SEQ ID NO: 29.

97. **(Twice Amended)** A method for decreasing neuronal cell death associated with a neuropathy, comprising contacting said neuronal cell with a morphogen selected from the group consisting of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, and BMP6, wherein the morphogen stimulates the production of an N-CAM or L1 isoform in said neuronal cell.

99. **(Twice Amended)** A method for decreasing neuronal cell death associated with a chemical or physical injury, comprising contacting said neuronal cell with a morphogen selected from the group consisting of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, and BMP6, wherein the morphogen stimulates the production of an N-CAM or L1 isoform in said neuronal cell.

105. **(Amended)** The method of claim 91, 97 or 99, wherein the morphogen is human OP-1.

106. **(Amended)** The method of claim 91, 97 or 99, wherein the morphogen is mouse OP-1.

Please add the following new claims:

107. **(New)** The method of claim 91, 97 or 99, wherein the morphogen is human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, BMP2A, BMP2B, Vgl, Vgr-1, BMP5, and BMP6.

108. (New) The method of claim 91, 97 or 99, wherein the morphogen is human OP-1, mouse OP-1, human OP-2, mouse OP-2, BMP5, and BMP6.

The claims presented above incorporate changes as indicated by the marked-up versions below.

91. (Twice Amended) A method of ~~preserving motor function in a mammal afflicted with or at risk of amyotrophic lateral sclerosis~~ for stimulating the production of an N-CAM or L1 isoform in a neuronal cell, comprising ~~administering the~~ contacting the neuronal cell with a morphogen comprising a dimeric protein having an amino acid sequence selected from the group consisting of a sequence:
- (a) having ~~at least 70% homology with~~ the C-terminal seven-cysteine skeleton of human OP-1, residues 38-139 of SEQ ID NO:5;
 - (b) having ~~greater than 60% the amino acid sequence identity with said~~ of the C-terminal seven-cysteine skeleton on human OP-1;
 - (c) defined by Generic Sequence 6, SEQ ID NO:31; and
 - (d) defined by OPX, SEQ ID NO: 29.
- ~~wherein said morphogen stimulates production of an N-CAM or L1 isoform by an NG108-15 cell in vitro.~~
97. (Amended Twice) A method for ~~restoring motor function in a mammal with amyotrophic lateral sclerosis~~ decreasing neuronal cell death associated with a neuropathy, comprising ~~administering to the mammal~~ contacting said neuronal cell with a morphogen selected from the group consisting of human OP-1, mouse OP-1, human OP-2, mouse OP-2, 60A, GDF-1, BMP2A, BMP2B, DPP, Vgl, Vgr-1, BMP3, BMP5, and BMP6, wherein the ~~administration of the morphogen restores motor function in the mammal~~ stimulates the production of an N-CAM or L1 isoform in said neuronal cell.
99. (Amended Twice) A method for ~~restoring motor function in a mammal with a spinal cord injury~~ decreasing neuronal cell death associated with a chemical or physical injury, comprising ~~administering to the mammal~~ contacting said neuronal cell with a morphogen